



Expanding Minds

Year 7 & 8



Expanding Minds

Every pupil has the potential to be a high performer.

Not only do we aspire to this in formal academic qualifications but also in a much broader sense.

Expanding Minds has been put together in order to support you in your learning beyond the classroom and examination specifications. We hope that you are motivated to try something different, explore subjects that you love in greater depth and breadth and challenge yourself to be more independent in your learning.

Each of your subjects have collated ideas for you to try.

Have a go and expand your mind!

COMPUTER SCIENCE



- Scratch: Practise your block programming skills. <https://scratch.mit.edu/>
- Kodu Game Lab - Microsoft 3D Visual programming tool. <http://fuse.microsoft.com/projects/kodu>.
- Learn the first principles of computer programming. <https://www.codeforlife.education/rapidrouter/>
- Learn Python.org - Python Learning tool www.learnpython.org/
- Hour of Code – <https://code.org/learn>
- Codecademy - Excellent site for learning various programming languages. www.codecademy.com

DESIGN AND TECHNOLOGY



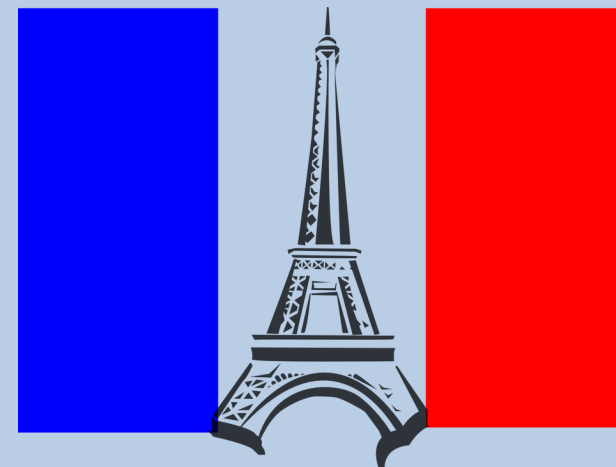
- Read newspapers and magazines – especially the design/innovation section of weekend supplements.
- There are a large range of magazines, e.g. copies of 'Designing' magazine for example are held within the D&T department and can be loaned out.
- Visiting local libraries – Telford library for example holds a wide range of reference material – try doing a search on heritage.
- A large range of books are also held within DT – again, these can be loaned out to students upon request.
- Use a digital camera to record ideas and examples of both good and bad design.
- Watch design related television programmes – these will be advertised around the department via posters when on to encourage student engagement.
- Charity shops are an excellent resource for affordable books and artefacts.

ENGLISH



- Join your local library
- Develop your own mini library at home- can you fill a shelf with exciting and challenging reads?
- Read with friends- share your love of books and challenge each other to read more!
- Read to someone at home- they can decide if you need a more challenging read, check your understanding and maybe help with difficult/unfamiliar vocabulary.
- Read some classical literature: Austen, Bronte, Shelley etc.
- Write a poem and then read it to someone at home. Get their feedback- did you move them/excite them/scare them?!!
- Go to the theatre and see a Shakespeare play, or a play from the literary heritage.
- Read a newspaper- read the editorials, book reviews and look out for journalistic pieces from prolific authors
- Extend your vocabulary: create a vocabulary book and use your wider reading to explore new and challenging vocabulary.
- Enter a short story competition- there are lots of these advertised on the internet!
- Consider writing a blog to develop your sense of voice
- Watch the news (Newsround is good place to start) to widen your understanding of current affairs.
- Write a short story and send it off to a publisher- could you be the next J.K. Rowling?!
- Get involved in a reading group/ book circle. You could join the Carnegie Shadowing group- fabulous books to discover!!

FRENCH



- Go to websites such as www.memrise.com or www.quizlet.com to practise vocabulary lists
- Listen to French music and French radio stations (www.ecouterradioenligne.com)
- Watch French films (first with subtitles and maybe without the next time you watch it.) and watch your favourite sport on a French channel.
- Read the news about francophone countries on www.TV5monde.com
- Change the settings on your phone/tablet to French
- Use French app Duo Lingo on your phone to practise further
- Look into the trip to Châtenay-Malabry with Telford's twinning association
- Make up a French recipe at home
- Try some new French food at home
- Make a leaflet about French speaking countries to broaden your general knowledge
- Look up the different jobs and educational opportunities that learning a language may bring you
- Take part in Routes into Languages Competitions
- Research the benefits that learning a language have on your health (eg: NHS recommend to learn a foreign language to enhance your mental health)
- Translate your favourite song into French.

GEOGRAPHY



- Read a good daily newspaper/ news websites – so much news has a geographical element. Keep a close eye on relevant news stories to become an informed, global citizen.
- Magazines and journals – National Geographic is available in school.
- Have, and dip into, a good atlas at home. Download Google Earth, ideal for widening your geographical horizons. Google Maps is also useful and includes the excellent 'Street View' function.
- Use the library.
- Consider any holiday or visit an informal geographical fieldtrip. Read travel guides before and when you go – these will enable you to enjoy all aspects of your trip e.g. landscape and culture.
- Get blogging! Express your opinions on global or local issues on sites such as the BBC.
- Write an EPQ on a geographical theme that you are interested in exploring in greater detail – it is also an opportunity to investigate a geographical area not covered in class.
- Enter Geographical competitions - explore the Geographical Association and Royal Geographical Society websites and become a Young Geographer and get involved in the poster and essay competitions they run.
- Watch geographical and issues-based programmes on TV – there are so many, and even dedicated channels on Freeview such as the Discovery Channel and National Geographic. Look at TED lectures online for up-to-date presentations and debates on wide ranging issues.
- Look into volunteering opportunities with issues based charities, such as the National Trust.

HISTORY

- Visit local libraries such as Oakengates or SouthWater - they have an extensive range of books about history—why not do a search on heritage?
- Periodicals: BBC History Magazine and History Today are both high-quality publications with articles covering the full gamut of historical interest from the ancient to the present day
- Look regularly at TV listings for good quality historical documentaries, films etc
- *Marr's History of Modern Britain; Masters of Money; Starkey's Monarchy; Starkey's Six Wives of Henry VIII; The West; The Civil War; Shama's History of Britain; Timelines TV; History of Britain (You Tube); Land of the Tsars (Episode 3)*
- *Elizabeth (1998); Cromwell (1970); Glory (1989); Nicholas and Alexandra (1971); The Way West (1967); Gladiator (2000); The Wind that Shakes the Barley (2007); Suffragette (2015)*
- *Www.activehistory.co.uk—www.tutors.org—www.historylearningsite.co.uk—www.victorianweb.org - www.johandclare.net—www.tudorhistory.org*
- *Visit Museums (West Midlands)—Black Country Museum; Harvington Hall; Blakesley Hall; Ironbridge Gorge Museums; RAF Museum, Cosford; Selly Manor; Shrewsbury Museum*
- *Museums (London) - British Museum; Imperial War & cabinet War Rooms; National Maritime Museum, Greenwich*
- *Museums (elsewhere) - American Museum (Bath), Ashmolean Mesuem (Oxford); Fitzwilliam Museum (Cambridge); Jorvik Viking Museum (York); National Museum of Scotland (Edinburgh); St Fagans (near Cardiff)*
- *Look into volunteering opportunities with the National Trust and English Heritage as well as local museums such as Ironbridge*
- *Cathedral Camps: www.csv.org.uk; spend your holiday working on conservation projects at a historical cathedral*



MATHS

- Have a go at the National Numeracy Challenge www.nationalnumeracy.org.uk/improve-your-maths or their Family Maths Toolkit which provides lots of ideas and resources that you can use with the whole family www.familymathstoolkit.org.uk
- Visit London's Science Museum and use your problem-solving skills in the **Top Secret: From Ciphers to Cyber Security** exhibition, walk around the **Mathematics: The Winton Gallery** or get investigate Maths in everyday life in the interactive **Wonderlab: The Equinor Gallery**
- Attempt the weekly puzzle at Puzzle of the Week www.puzzleoftheweek.com. Submit your answers using the school's details to achieve house points.
- Be challenged, get curious and do Maths at Parallel <https://parallel.org.uk> - get a Teacher Code from your Maths Teacher to achieve house points.
- Get involved in the individual UKMT Junior Mathematical Challenge through school and strive for a bronze, silver or gold and a possible invite to their Kangaroo or Olympiad. <https://www.ukmt.org.uk>
- Be part of the UKMT Team Maths Challenges <https://www.ukmt.org.uk>
- Sign up for the National Cipher Challenge <http://www.cipherchallenge.org>
- Attempt The Alan Turing Cryptography Competition https://www.maths.manchester.ac.uk/cryptography_competition/
- The nRich website has some brilliant puzzles and articles on all areas of maths. <https://nrich.maths.org/>
- CorbettMaths 5-a-day worksheets are great extra practise. <https://corbettmaths.com/5-a-day/>



MATHS CONT'D

- Visit Bletchley Park, and explore the home of the World War Two Codebreakers.
- Compete in the Battle of the Bands and other events on TTRockstars <https://trockstars.com>
- Try the problems available at The Scottish Mathematical Council website <http://www.wpr3.co.uk/MC/probs.html>



Maths Books

Murderous Maths books, Kjartan Poskitt

Why do Buses come in Threes, Eastaway and Wyndham

How Long is a Piece of String, Eastaway

Does God Play Dice, Ian Stewart (or other books by the same author)

You are a Mathematician, David Wells (or other books by the same author)

Fermat's Last Theorem, Simon Singh (or other books by the same author)

Chaos, James Gleick

Music of the Primes, Marcus du Sautoy (or other books by the same author)

50 Maths Ideas that you really need to know, Tony Crilly

The Tiger that isn't, Blastland and Dilnot

How to lie with Statistics, Darrell Huff

Bad Science, Ben Goldacre

1089 and all that, David Acheson

The man who loved numbers, Ben Hoffman

The Joy of Counting, Tom Korner

MUSIC

- Every week choose one piece to listen to in a style that you are not familiar with.
- Listen to as much music as possible! Radio 3 and Classic FM are good for familiarising yourself with more classical styles – can you learn to recognise the characteristics of different eras and composers?
- Try Radio 6 for different styles of contemporary music and new artists
- Attend as many concerts or gigs as you can. Theatre Severn and Oakengates Theatre have many classical, popular and jazz events.
- Look out for music events in the Town Park and other local venues.
- Go and watch the CBSO at Symphony Hall!
- Join a choir, this will improve both you singing and aural skills.
- Join a band or orchestra, either at school or one in your area run by Telford and Wrekin Music.
- Enter a composition competition – look on BBC Proms or the Royal Opera House website for ideas. Work to develop your music theory skills. Use the music theory page by working through an ABRSM or Trinity-Guildhall theory workbooks.
- Learn to improvise.
- Choose a composer whose music you like and try to find out more about him/her.
- Challenge yourself to learn a piece in a different style to that which you are accustomed



PE

The best way to improve your skill and understanding in sport is to attend clubs both inside and outside school.

Sporting Events

Below are some key events that we would recommend you have a broad range of knowledge on. Keep up to date with as many sporting events as possible and further your knowledge of where and when the events occur, who takes part ...

WIMBLEDON (June-July) - This is the oldest tennis tournament in the world, it is one of the four Grand Slam tennis tournaments and is the only major still played on grass.

SIX NATIONS - The Six Nations is an annual international rugby union competition involving six European sides; England, France, Ireland, Italy, Scotland and Wales.

THE ASHES - This is the notational prize in test cricket series played between England and Australia. Ashes series are traditionally of five tests played every two years

OLYMPICS - The Olympic Games are held every four years and are the leading international sporting event featuring summer and winter sports competitions.

THE FOOTBALL WORLD CUP - Also known as the FIFA World Cup, this competition occurs every four years.

THE COMMONWEALTH GAMES - An international multi-sport event involving athletes from the Commonwealth of Nations.

UEFA EURO 2020 - Football championships

Resources

www.brainmac.co.uk/index.htm

www.bbc.co.uk/bitesize

www.bbc.co.uk/sport



RELIGIOUS EDUCATION



Task	Evidence
Write a diary for 'A day in the life of ...'	Can produce a diary entry for a day in the life of a religious believer from either Hinduism, Buddhism or the Baha'i faith
Attend a Catholic Baptism / Denominational Christening	Can produce a display (including photographs) of the event
Write a book review on a religious-centred text (as agreed with your RE teacher)	Book review
Visit a place of worship (organised by HTA)	Can produce a display (including photographs) of the event
Visit a place of worship (organised by yourself)	Can produce a display (including photographs) of the event
EXPLORE website	Produce a display on which Big Question you contributed to and why ... to include key information / arguments + your own opinion ... which of the arguments did you find the most / least convincing and why
Who had the biggest impact on Christianity today ... St Peter or St Paul?	Create a fact file and assess & analyse what influence both of these people have had
Organise a Lenten Meditation session for the staff. This will take place one lunchtime (to be discussed with RE staff). As a group, you will need to research and explore the purpose and importance of Meditation and decide as a group how best to create an atmosphere and session that fulfils these aims.	Meditation service / experience takes place. Evaluation forms completed.
'Turin Shroud ... Real or Fake?'	Create a fact file and assess & analyse the evidence & arguments on both sides
Which is the most convincing ... Theism or Atheism?	Create an evidence file and assess & analyse the evidence & arguments on both sides

SCIENCE

- Read a good daily newspaper/ news websites – so much news has a Science and Technology element. Keep a close eye on relevant news stories to become a scientifically literate citizen.
- Magazines and journals – National Geographic is an excellent source of ideas about Biology and the environment; BBC Science FOCUS magazine is also excellent for this age group.
- Click on the Daily “Google Doodle” pictures on the Google Search engine. Many of these are links to key figures from the history of Science and Technology and will help you to understand the scientific endeavour that led to many of the ideas that you learn about in lessons today!
- Use the library of books down in the Science department.
- Whenever you are on holiday or have a free weekend, explore a Science or Technology museum. For example, just down the road in Ironbridge you can visit Enginuity. A daytrip away, you have Chester Zoo, MOSI (Manchester), Thinktank (Birmingham). Or you could even travel a little bit further to Deutsches Museum (Munich, Germany) !
- Get blogging! Express your opinions on medical and technology issues on sites such as the BBC.
- Enter the yearly Google Science Fair – up for grabs is a prize to travel abroad and meet some amazing people. In 2011, winners of the Google Science Fair got to meet President Barack Obama at the White House in USA!!
- Watch TED lectures online for up-to-date presentations and debates on wide ranging issues in Science. TED make some great videos to help you to revise and understand a whole range of different scientific ideas in interesting ways.
- Get involved with the Shropshire Wildlife Trust activities to learn more about the natural world and biodiversity.
- Have a go at some of the fun experiments that you can do at home from the IOP (Institute Of Physics) with Marvin and Milo <http://www.physics.org/marvinandmilo.asp> and be prepared to be amazed!!!!

